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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,037	11/21/2001	Gopal B. Avinash	GEMS:0175 112012	3603

7590 11/30/2004
Patrick S. Yoder
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Houston, TX 77269-2289

EXAMINER

KASSA, YOSEF

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/991,037

Applicant(s)

AVINASH, GOPAL B.

Examiner

YOSEF KASSA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-90 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-25 and 68-90 is/are allowed.
- 6) ☒ Claim(s) 26-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 26-48 are rejected under 35 U.S.C. 112, second paragraph. That is, claim 29 recites the limitations "the dominant" in line 19, and "the homogenization" in line 21. There is insufficient antecedent basis for this limitation in the claim.

Claims 49-67 are rejected under 35 U.S.C. 112, second paragraph. That is, claim 52 recites the limitation "the non-selected" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 49 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Examiner did not understand the phrase "different manners" recited in line 10. It is impossible to make or use the process without providing a clear definition/explanation of the phase.

Allowable Subject Matter

2. Claims 1-25 and 68-90 are allowed.

The following is an examiner's statement of reasons for allowance. The closest prior art of record failed to teach or suggest, processing the first shrunken image to reduce image noise by selectively processing the one or more selected regions of the first shrunken image and differentially processing one or more non-selected regions of

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the first shrunken image such that a processed image results, expanding the processed image by the given factor to produce an expanded image, and blending the one or more selected regions in the expanded image with one or more corresponding regions of the first initial image (claims 1-25); and smoothing image data representative of pixels of the first shrunken image, identifying one or more structural features from the smoothed image data using image data from both the first shrunken image and the second shrunken image, orientation smoothing the structural features, homogenization smoothing nonstructural regions, orientation sharpening the structural features, expanding the first shrunken image to the same dimensions as the first initial image to form an expanded image, and blending of first initial image data into the expanded image data to form a final image (claims 68-90). Therefore, in combination with all the other limitations claims 1-25 and 68-90 are allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Other Prior Art Cited

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. (6,424,730) to Wang et al discloses medical image enhancement method for hardcopy prints.

US Patent No. (6,717,610) to Bos et al discloses wide angle image capture system for vehicle

US Patent No. (6,018,597) to Maltsev et al discloses method and apparatus for changing or mapping video...

US Patent No. (6,633,662) to Ravkin discloses identification of objects of objects of interest...

US Patent No. (5,860,931) to Chandler discloses ultrasound method and system for measuring perfusion.

US Patent No. (6,720,997) to Horie et al discloses image generating apparatus.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOSEF KASSA whose telephone number is (703) 306-5918. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 6:30 PM.

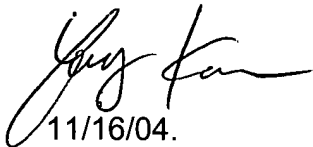
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BHAVESH MEHTA can be reached on (703) 308-5246. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communication and (703) 872-9306 for after Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (703) 306-5631. The group receptionist number for TC 2600 is (703) 305-4700.

PATENT EXAMINER

Yosef Kassa



11/16/04.